

Application No. 10/019,743
Amendment dated December 1, 2005
First Preliminary Amendment

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AMENDMENTS TO THE CLAIMS

1. (Previously presented, Previously Allowed) A process for preparing a LH-RH derivative which comprises the steps of:

contacting a solution containing the LH-RH derivative with a methacrylic synthetic adsorption resin; and

contacting the solution containing the LH-RH derivative with an aromatic synthetic adsorption resin.

2. (Previously presented, Previously Allowed) The process according to claim 1, wherein the LH-RH derivative is a peptide represented by the formula

5-oxo-Pro-His-Trp-Ser-Tyr-Y-Leu-Arg-Pro-Z

wherein Y indicates a residue selected from D-Leu, D-Ala, D-Trp, D-Ser(tBu), D-2Nal and D-Ile(ImBzl), and Z indicates NH-C₂H₅ or Gly-NH₂, respectively, or a salt thereof.

3. (Previously presented, Previously Allowed) The process according to claim 1, wherein the LH-RH derivative is a peptide represented by the formula

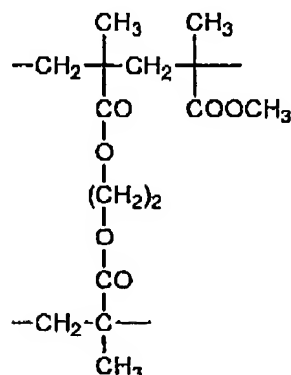
5-oxo-Pro-His-Trp-Ser-Tyr-D-Leu-Leu-Arg-Pro-NH-C₂H₅

or its acetate.

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4. (Original, Previously Allowed) The process according to claim 1, wherein said process comprises using a methacrylic synthetic adsorption resin having a repeating unit represented by the formula



5. (Original, Previously Allowed) The process according to claim 1, wherein the aromatic synthetic adsorption resin is a styrene-divinylbenzene synthetic adsorption resin.

6. (Original, Previously Allowed) The process according to claim 5, wherein an average particle size of the styrene-divinylbenzene, synthetic adsorption resin is about 60 nm to about 150 nm.

7. (Original, Previously Allowed) The process according to claim 1, wherein said process comprises subjecting a solution containing the LH-RII derivative to the step for treatment with a methacrylic synthetic adsorption resin below about 10°C.

8. (Original, Previously Allowed) The process according to claim 1, wherein said process comprises subjecting a solution containing the LH-RH derivative to the step for treatment with an aromatic synthetic adsorption resin at about 10°C to about 20°C.

9. (Original, Previously Allowed) The process according to claim 1, wherein said process comprises subjecting a solution containing the LH-RII derivative to the step for treatment

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with a methacrylic, synthetic adsorption resin, followed by subjecting to the step for treatment with an aromatic, synthetic adsorption resin.

10. (Previously presented, Previously Allowed) The process according to claim 1, said process comprises passing a solution containing the LH-RH derivative through a resin in the step of contacting the LH-RH derivative with the methacrylic synthetic adsorption resin; and then eluting the LH-RH derivative, which is adsorbed on the resin, with an aqueous solution of acetic acid.

11. (Original, Previously Allowed) The process according to claim 10, wherein the concentration of an aqueous solution of acetic acid is about 0.01 M to about 0.50 M.

12. (Previously presented, Previously Allowed) The process according to claim 1, wherein said process comprises passing a solution containing the LH-RH derivative through a resin in the step of contacting the LH-RH derivative with a methacrylic, synthetic adsorption resin, followed by washing with an aqueous solution of ethanol, and then by eluting the LH-RH derivative that is adsorbed on the resin.

13. (Original, Previously Allowed) The process according to claim 1, wherein a solution containing the LII-RII derivative is that obtained by subjecting the LII-RII derivative protected with protective group(s) to a deprotection reaction followed by a neutralization reaction below about 10°C.

14. (Original, Previously Allowed) The process according to claim 1, wherein a solution containing the LH-RH derivative is that obtained by subjecting the LH-RH derivative protected with protective group(s) to a deprotection reaction and then a neutralization reaction below about 10°C, followed by subjecting the resulting mixture to extraction of the LH-RH derivative and then concentration of the extract below 25°C.

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15. (Previously presented, Previously Allowed) The process according to claim 13 or 14, wherein the LH-RH derivative protected with protective group(s) is represented by the formula 5-oxo-Pro-His-Trp-Ser-Tyr-Y-Leu-Arg(X)-Pro-Z

wherein X indicates a protective group, Y indicates a residue selected from D-Leu, D-Ala, D-Trp, D-Ser(tBu), D-2Nal and D-His(ImBzl) and Z indicates NII-C₂H₅ or Gly-NH₂, respectively.

16. (Canceled)

17. (Canceled)

18. (Previously presented, Previously Allowed) The process according to claim 14, wherein the LH-RH derivative protected with protective group(s) is represented by the formula 5-oxo-Pro-His-Trp-Ser-Tyr-Y-Leu-Arg(X)-Pro-Z

wherein X indicates a protective group, Y indicates a residue selected from D-Leu, D-Ala, D-Trp, D-Ser(tBu), D-2Nal and D-His(ImBzl) and Z indicates NII-C₂H₅ or Gly-NH₂, respectively.

19. (Canceled)